

CLAIMS

We claim:

1. A process for manufacturing industrial detergents and industrial detergent components as a finished product in granulate or agglomerate form on a dry basis in an essentially horizontally oriented fluidized bed, comprising:
- performing different process steps, including heating, agglomeration, coating, drying and cooling, for manufacturing the finished product in a single or multiple stage fluidized bed;
 - supplying solid powdered starting material in a first process step to the fluidized bed in an area of fluidizing space;
 - supplying process air to the different process steps from beneath the fluidized bed, wherein a process temperature or supply temperature for agglomeration of the product is a function of a decomposition temperature of individual material components of the finished product and lies in a range of about 20 to 300°C, and the process air for cooling has a temperature lying in a range of about -20 to +30°C;
 - supplying a binder, water and/or one or more material components in a form of solutions, suspensions or melts to the solid in the fluidized bed in the area of the fluidizing space over an entire process range using a spray or injection system, wherein the dry portion in the spray medium comprises 0 to 100%;
 - fluidizing the individual components in the area of the fluidizing space to form a solid mixture comprising granulates of homogenous composition;
 - reducing a flow speed of the process air supplied from below to the fluidizing space in an expansion zone located above the fluidizing space and formed by cross-sectional widenings, such that a pre-separation of particles entrained from the fluidizing space and a return of the pre-separated particles into the fluidizing space occur; and

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3. The process according to claim 1, wherein supplying the starting material to the fluidized bed and discharge of the finished product from the fluidized bed are performed under pressure seal from the environment.

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